

CLAIMS

We claim:

1. An ablation catheter comprising:

a tubular body having a distal end region, the tubular body defining at least a partial curve along the distal end region of the tubular body, the partial curve being adapted to change curvature; and

at least one electrode arranged along the at least partial curve, the at least one electrode being adapted to change curvature along with the at least partial curve along the distal end region of the tubular body.

2. The ablation catheter of claim 1 wherein the at least one electrode comprises at least one electrode strand arranged in a flexible configuration.

3. The ablation catheter of claim 2 wherein the at least one electrode comprises at least one flexible and resilient electrode strand.

4. The ablation catheter of claim 3 wherein the at least one flexible and resilient electrode strand is comprised of, at least partially, of material selected from the group consisting of platinum, gold, stainless steel, and composite of conductive polymer metal.

5. The ablation catheter of claim 2 wherein the at least one electrode strand defines a saw tooth pattern.

6. The ablation catheter of claim 2 wherein the at least partial curve defines an outside radius, and wherein the at least one electrode strand defines a first end region and a second end region, and wherein the first end region is coupled with a point along the outside radius of the at least partial curve and wherein the second end region is coupled with a second point along the outside radius of the at least partial curve along the distal end region of the tubular body.

7. The ablation catheter of claim 2 wherein the at least one electrode strand further defines an elastically deformable strand.

8. The ablation catheter of claim 7 wherein the at least one elastically deformable strand is biasedly coupled with the at least partial curve along the distal end region of the tubular body.

9. The ablation catheter of claim 8 wherein the biased connection of the at least one elastically deformable strand is biased to change the curvature of the at least partial curve along the distal end region of the tubular body.

10. The ablation catheter of claim 1 wherein the at least partial curve along the distal end region of the tubular body defines a closed loop.

11. The ablation catheter of claim 1 wherein the at least partial curve along the distal end region of the tubular body defines an open loop.

12. The ablation catheter of claim 2 wherein the at least one electrode includes at least one electrode strand interlaced along the at least partial curve along the distal end region of the tubular body.

13. The ablation catheter of claim 12 wherein the at least partial curve defines an outside surface, and wherein the at least one electrode strand is interlaced along the outside surface.

14. The ablation catheter of claim 12 wherein at least partial curve defines an inside surface, and wherein the at least one electrode strand is interlaced along the inside surface.

15. The ablation catheter of claim 13 wherein at least one electrode strand is interlaced along the outside circumference such that the electrode strand is intermittently exposed along the outside circumference.

16. The ablation catheter of claim 15 wherein:

the at least one electrode strand defines a first length of the at least one strand, the first length defining intermittently exposed sections of the at least one electrode strand; and

the at least one electrode strand further defines a second length of the at least one strand, the second length defining intermittently exposed sections of the at least one electrode strand.

17. The ablation catheter of claim 16 wherein the first length of the at least one strand and the second length of the at least one strand cooperate to define a generally continuously exposed segment of the at least one strand.

18. The ablation catheter of claim 17 wherein the generally continuously exposed segments of the at least one strand is coupled with a power supply and adapted to be energized thereby during an ablation procedure.

19. An ablation catheter comprising

a tubular shaft defining a distal end region, the tubular shaft further defining at least a partial curve along the distal end region;

flexible electrode means for conveying ablation energy to a target tissue, the flexible electrode means arranged along the at least partial curve along the distal end region of the tubular shaft.

20. The ablation catheter of claim 19 wherein the means for conveying ablation energy to a target tissue comprises at least one electrode strand arranged in a flexible configuration along some portion of the at least partial curve along the distal end region of the tubular shaft.